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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/661,824

09/12/2003

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CANO:085

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37013 7590 07/24/2008  
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EXAMINER

QIN, YIXING

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

07/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/661,824	<b>Applicant(s)</b> CHIZAWA ET AL.	
	<b>Examiner</b> Yixing Qin	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,8 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,8 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

In response to applicant's amendment received 4/4/08, all requested changes have been entered.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. The claims have been newly amended and have been searched/reconsidered. However, the previously cited Shishido reference, still teaches/suggests the amended features. Please see the rejection below for more detail.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 8, and 15-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Shishido (U.S. Patent No. 6376854)

Regarding claims 1, 8, Shishido discloses an image reading apparatus[[,]] comprising:

a reference member; (See Fig. 4, item 2 is a stage)

an image reading device capable of reading image data of the reference member; (Fig. 1 item 30 is a electron beam used for scanning)

It does not explicitly disclose " a storage device that stores a first image data obtained by reading said reference member with said image reading device at a plurality of positions in a sub-scanning direction while said image reading device moves , and stores a second image data obtained by averaging image data acquired by reading said reference member a plurality of times at a position in the sub-scanning direction by said image reading device;"

However, Shishido discloses column 6, lines 1-26 – scanning is performed and a first image and second image are acquired. Column 3, line 53-column 4, line 7 that the second image of which represented as a gradation value is a sampling value. Column 4, lines 63-67 discloses that the gradation value is an average value . It does not explicitly disclose which direction the scanning occurs, but one of ordinary skill knows that

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have obtained data scanning in a particular direction.

The motivation would have been to enable data to be properly gathered.

Therefore, it would have been obvious to alter Shishido to obtain the invention as specified.

a detecting device that detects abnormality on the an abnormal position of said reference member at the position, at which the second image data is obtained, based on the first and second image data having random noise components suppressed by said random noise suppressing stored in said storage device. (column 2, lines 42-48, images are compared to obtain defects. Also see column 19, lines 44-53 for noise removal)

Regarding claim 15, Shishido discloses the image reading apparatus according to claim 1, wherein said detecting device detects the abnormal position by carrying out a shading correction on the second image data with the first image data. (column 10, lines 5-41 discloses a shading correction technique using reference data 83 based on image data obtained in advance to fix further images. Although it is not explicitly stated to be the first and second image, one of ordinary skill recognizes that Shishido allows for shading correction using previously collected data on a reference image for correcting a next image. )

Regarding claim 16, Shishido discloses the image reading apparatus according to claim 1, further comprising a moving device that moves said image reading device in the sub-scanning direction so that said image reading device reads said reference member. (Fig. 1, stage 2 is used to move various objects that are to be scanned. )

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Regarding claim 17, Shishido discloses the image reading apparatus according to claim 16, wherein said moving device moves said image reading device to read an original. (again, stage 2 is moved so that a wafer 100 can be scanned. )

Regarding claim 18, Shishido discloses the image reading apparatus according to claim 17, wherein said image reading device includes a line sensor that reads said reference member and the original. (Fig. 4, item 6, is a one-dimensional sensor, which would be analogous to a line sensor)

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625